AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for performing time measurements during instrumentation-based profiling, comprising:

measuring an overhead time, wherein the overhead time is the time required to execute profiling instrumentation code in isolation measured through a calibration procedure, ~~and~~ wherein the calibration procedure involves executing the instrumentation code in a loop for a number of times, and wherein multiple copies of the instrumentation code are included in the loop;

receiving a code to be profiled;

inserting the profiling instrumentation code in the code;

executing the code including the instrumented portions of the code;

measuring a time for executing the code including the instrumented portions of the code; and

subtracting the overhead time from the measured time to obtain the time for the code to be profiled.

2. (Original) The method of claim 1, wherein the code includes platform-independent Java bytecodes.

3. (Cancelled)

1   4. (Original) The method of claim 3, wherein the profiling instrumentation

2   code is executed multiple times to determine an average value for the overhead

3   time.

1   5. (Original) The method of claim 4, wherein the profiling instrumentation

2   code includes method entry code that takes a first time measurement at the

3   beginning of a method, and method exit code that takes a second time

4   measurement at the end of the method, wherein the first and second time

5   measurements are used to calculate an execution time for the method.

1   6. (Original) The method of claim 5, wherein determining the overhead

2   time involves calculating an inner time $t_I = x_2 + y_1$, wherein y_1 is the time between

3   when the first time measurement is taken and when the method entry code is

4   finished executing, and wherein x_2 is the time between when the method exit code

5   begins executing and when the second time measurement is taken.

1   7. (Original) The method of claim 6, wherein the time t_{exact} for executing

2   instrumented portions of the code is calculated as $t_{exact} = t_{meas} - t_I$.

1   8. (Original) The method of claim 7, wherein if the method makes m calls

2   to other methods, the time for executing instrumented portions of the code

3       $t_{exact} = t_{meas} - t_I - mt_O$, wherein the outer time, $t_O = x_1 + y_2$, wherein x_1 is the time

4   between when the method entry code begins executing and when the first time

5   measurement is taken, and wherein y_2 is the time between when the second time

6   measurement is taken and when the method exit code is finished executing.

1   9. (Currently Amended) A computer-readable storage medium storing

2   instructions that when executed by a computer cause the computer to perform a

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3   method for performing time measurements during instrumentation-based

4   profiling, wherein the computer-readable storage medium includes magnetic and

5   optical storage devices, disk drives, magnetic tape, CDs (compact discs), and

6   DVDs (digital versatile discs or digital video discs), the method comprising:

7   measuring an overhead time, wherein the overhead time is the time

8   required to execute profiling instrumentation code in isolation measured through a

9   calibration procedure, ~~and~~ wherein the calibration procedure involves executing

10   the instrumentation code <u>in a loop</u> for a number of times, <u>and wherein multiple</u>

11   <u>copies of the instrumentation code are included in the loop</u>;

12   receiving a code to be profiled;

13   inserting the profiling instrumentation code in the code;

14   executing the code including the instrumented portions of the code;

15   measuring a time for executing <u>the code including the</u> instrumented

16   portions of the code; and

17   subtracting the overhead time to obtain the time for the code to be profiled.

1   10. (Original) The computer-readable storage medium of claim 9, wherein

2   the code includes platform-independent Java bytecodes.

1   11. (Cancelled)

1   12. (Original) The computer-readable storage medium of claim 11,

2   wherein the profiling instrumentation code is executed multiple times to

3   determine an average value for the overhead time.

1   13. (Original) The computer-readable storage medium of claim 12,

2   wherein the profiling instrumentation code includes method entry code that takes

3   a first time measurement at the beginning of a method, and method exit code that

4   takes a second time measurement at the end of the method, wherein the first and

5   second time measurements are used to calculate an execution time for the method.

1   14. (Original) The computer-readable storage medium of claim 13,

2   wherein determining the overhead time involves calculating an inner time $t_I = x_2 +$

3   y_1, wherein y_1 is the time between when the first time measurement is taken and

4   when the method entry code is finished executing, and wherein x_2 is the time

5   between when the method exit code begins executing and when the second time

6   measurement is taken.

1   15. (Original) The computer-readable storage medium of claim 14,

2   wherein the time t_{exact} for executing instrumented portions of the code is

3   calculated as $t_{exact} = t_{meas} - t_I$.

1   16. (Original) The computer-readable storage medium of claim 15,

2   wherein if the method makes m calls to other methods, the time for executing

3   instrumented portions of the code $t_{exact} = t_{meas} - t_I - mt_O$, wherein the outer time,

4    $t_O = x_1 + y_2$, wherein x_1 is the time between when the method entry code begins

5   executing and when the first time measurement is taken, and wherein y_2 is the

6   time between when the second time measurement is taken and when the method

7   exit code is finished executing.

1   17-24 (Canceled).